

AMENDMENTS TO THE CLAIMS

Please cancel claim 1, amend claims 3, 4, 6, 9-11, 14, 15, 17 and 44, and add new claims 53 and 54 as follows:

1-2. (Cancelled)

3. (Currently Amended) The pellet of Claim 544 in which said at least one waste substance is selected from hydrocarbon material, safe industrial waste, commercial and institutional waste, wood, rubber, fibrous material and other waste having a fuel value of at least 10,000 BTU per pound.

4. (Currently Amended) The pellet of Claim 544 in which said at least one waste substance is selected from the group consisting of hydrocarbons, carbon, safe industrial waste, commercial and institutional waste, carpet, underlay, vinyl flooring, rubbers, tires, automotive insulation, compost residue, coal dust, fabrics, leather, furniture, peat, hemp, jute, sugarcane, coconut husks, corn husks, rice hulls, sewage sludges, wood and paper fibres, and mixtures thereof.

5. (Original) The pellet of Claim 4 in which the hydrocarbon is petroleum coke, the carbon is bottom ash, the rubber is synthetic rubber, the wood is selected from the group consisting of bark, chips, sawdust, plywood, particle board, pallets, skids, bush, tree branches and yard waste, and fibres are selected from the group consisting of corrugated cardboard, newspaper, packaging, box board, aseptic board and pulp sludges.

6. (Currently Amended) The pellet of Claim 544 in which the pellet is in the form of compacted fluff.

7-8. (Cancelled)

9. (Currently Amended) The pellet of Claim 544 in which the emissions released from combustion of the pellet are less than 17 mg/Rm³ of particulate matter, less than 14 µg/Rm³ of cadmium, less than 142 µg/Rm³ of lead, less than 20 µg/Rm³ of mercury, less than 0.14 ng/Rm³ of dioxin/furan, less than 27 mg/Rm³ of hydrochloric acid, less than 56 mg/Rm³ of sulphur dioxide and less than 110 ppmv of nitrogen oxides.

10. (Currently Amended) The pellet of Claim 544 which, on combustion at a temperature of 1150°C in air, has a bottom ash content of less than 10% by weight.

11. (Currently Amended) The pellet of Claim 544 in which the fuel value of the pellet is at least 12,000 BTU per pound.

12. (Previously Presented) The pellet of Claim 11 in which the fuel value of the pellet is in the range of 12500-14000 BTU per pound.

13. (Previously Presented) The pellet of Claim 11 in which the fuel value of the pellet is at least 14,000 BTU per pound.

14. (Currently Amended) The pellet of Claim 544 in which the water content is in the range of 1-7 percent by weight.

15. (Currently Amended) The pellet of Claim 544 in which the pellet has a length of at least 3 cm and a width of at least 1 cm.

16. (Original) The pellet of Claim 15 in which the pellet has a length of 5-15 cm and a width of 3.5-8 cm.

17. (Currently Amended) The pellet of Claim 544 in which the cross-section of the pellet is substantially circular.

18. (Previously Presented) A process for forming a combustible pellet from municipal solid waste, comprising:

- a) removing hazardous waste and recyclable products from the municipal solid waste to form recyclable-free, hazardous waste-free municipal solid waste, wherein the recyclable-free, hazardous waste-free municipal solid waste is approximately or completely free of glass, metals, plastics, and paper;
- b) treating the recyclable-free, hazardous waste-free municipal solid waste to form a fluff;
- c) adding at least one waste substance having a fuel value of at least 10,000 BTU per pound after (b); and
- d) compacting the fluff with said at least one waste substance to form a combustible pellet having a fuel value of at least 10,000 BTU per pound.

19. (Previously Presented) The process of Claim 18 in which anaerobic digestion follows (a).

20. (Original) The process of Claim 19, wherein digestion takes about 15 to 25 days.

21. (Original) The process of Claim 19 or Claim 20, wherein gas is produced from digestion.

22. (Original) The process of Claim 21, wherein the gas drives a gas-fired turbine engine.

23. (Original) The process of Claim 21, wherein the gas is used to dry the waste.

24-26. (Cancelled)

27. (Previously Presented) The process of Claim 18 in which said at least one waste substance is selected from hydrocarbon material, safe industrial waste, commercial and institutional waste, wood, rubber, fibrous material and other waste having a fuel value of at least 10,000 BTU per pound.

28. (Previously Presented) The process of Claim 18 in which said at least one waste substance is selected from the group consisting of hydrocarbons, carbon, safe industrial, commercial and institutional waste, carpet, underlay, vinyl flooring, rubbers, tires, automotive insulation, compost residue, coal dust, fabrics, leather, furniture, peat, hemp, jute, sugarcane, coconut husks, corn husks, rice hulls, sewage sludges, wood and paper fibres, and mixtures thereof.

29. (Previously Presented) The process of Claim 28 in which the hydrocarbon is petroleum coke, the carbon is bottom ash, the rubber is synthetic rubber, the wood is selected from the group consisting of bark, chips, sawdust, plywood, particle board, pallets, skids, bush, tree branches and yard waste, and fibres are selected from the group consisting of corrugated cardboard, newspaper, packaging, box board and aseptic board, and pulp sludges.

30-32. (Cancelled)

33. (Previously Presented) The process of Claim 18 in which the emissions released from combustion of the pellet are less than 17 mg/Rm³ of particulate matter, less than 14 µg/Rm³ of cadmium, less than 142 µg/Rm³ of lead, less than 20 µg/Rm³ of mercury, less than 0.14 ng/Rm³ of dioxin/furan, less than 27 mg/Rm³ of hydrochloric acid, less than 56 mg/Rm³ of sulphur dioxide and less than 110 ppmv of nitrogen oxides.

34. (Previously Presented) The process of Claim 18 in which, on combustion at a temperature of 1150°C in air, the pellet has a bottom ash content of less than 10% by weight.

35. (Previously Presented) The process of Claim 18 in which the fuel value of the pellet so obtained is at least 12,000 BTU per pound.

36. (Previously Presented) The process of Claim 35 in which the fuel value of the pellet so obtained is in the range of 12,500-14,000 BTU per pound.

37. (Original) The process of Claim 35 in which the fuel value of the pellet so obtained is at least 14,000 BTU per pound.

38. (Previously Presented) The process of Claim 18 in which the water content of the pellet so obtained is in the range of 1-7 percent by weight.

39. (Previously Presented) The process of Claim 18 in which the pellet so obtained has a length of at least 3 cm and a width of at least 1 cm.

40. (Original) The process of Claim 39 in which the pellet so obtained has a length of 5-15 cm and a width of 3.5-8 cm.

41. (Previously Presented) The process of Claim 18 in which the cross-section of the pellet so obtained is substantially circular.

42-43. (Cancelled)

44. (Currently Amended) The pellet of Claim 544 in which the water content is less than 10% by weight.

45. (Previously Presented) The pellet of Claim 10, in which, on combustion at a temperature of 1150°C in air, the pellet has a bottom ash content of 3-8% by weight.

46. (Previously Presented) The process of Claim 18 in which the water content is less than 10% by weight.

47. (Previously Presented) The process of Claim 34, in which, on combustion at a temperature of 1150°C in air, the pellet has a bottom ash content of 3-8% by weight.

48. (Previously Presented) The process of claim 18, in which (b) comprises shredding and pulverizing to form the fluff.

49. (Previously Presented) The process of claim 18, in which said at least one waste substance is added after (b).

50. (Previously Presented) The process of claim 18, in which treating comprises shredding and pulverizing.

51. (Previously Presented) A process for forming a combustible pellet from municipal solid waste, comprising:

- a) removing hazardous waste and recyclable products from the municipal solid waste to form recyclable-free, hazardous waste-free municipal solid waste, wherein the recyclable-free, hazardous waste-free municipal solid waste is approximately or completely free of glass, metals, plastics, and paper;
- b) treating the recyclable-free, hazardous waste-free municipal solid waste to form a fluff;
- c) adding at least one waste substance having a fuel value of at least 10,000 BTU per pound before (b); and

- d) compacting the fluff with said at least one waste substance to form a combustible pellet having a fuel value of at least 10,000 BTU per pound.
52. (Cancelled)
53. (New) A combustible pellet produced by a method comprising:
- a) removing hazardous waste and recyclable products from municipal solid waste to form recyclable-free, hazardous waste-free municipal solid waste, wherein the recyclable-free, hazardous waste-free municipal solid waste is approximately or completely free of glass, metals, plastics, and paper;
 - b) treating the recyclable-free, hazardous waste-free municipal solid waste to form a fluff;
 - c) adding at least one waste substance having a fuel value of at least 10,000 BTU per pound before (b); and
 - d) compacting the fluff with said at least one waste substance to form a combustible pellet having a fuel value of at least 10,000 BTU per pound.
54. (New) A combustible pellet produced by a method comprising:
- a) removing hazardous waste and recyclable products from municipal solid waste to form recyclable-free, hazardous waste-free municipal solid waste, wherein the recyclable-free, hazardous waste-free municipal solid waste is approximately or completely free of glass, metals, plastics, and paper;
 - b) treating the recyclable-free, hazardous waste-free municipal solid waste to form a fluff;
 - c) adding at least one waste substance having a fuel value of at least 10,000 BTU per pound after (b); and
 - d) compacting the fluff with said at least one waste substance to form a combustible pellet having a fuel value of at least 10,000 BTU per pound.